

**AUSTRALIAN BEETLE-MIMICKING BUGS OF
THE FAMILY LYGAEIDAE (SUBFAMILY RHYPAROCHROMINAE-
TRIBE LETHAEINI)**

BY GORDON F. GROSS, SOUTH AUSTRALIAN MUSEUM

Fig. 1, A-D

INTRODUCTION

During sorting of the Museum collections of Lygaeidae Rhyparochrominae the writer came across the four very interesting species described in this paper. They belong to two new genera which must be placed in the tribe Lethaeini in respect of the three trichobothria on sternum V, the last of which lies posterior to spiracle V (Scudder, 1957, p. 154).

In both genera the hemelytra have lost all trace of a membrane and have become hardened so that there does not appear to be any distinction between clavus and corium. The condition does appear to be one of brachyptery for, although hardened, these "elytra" extend almost to the apex of the abdomen. This is also true of the brachypterous hemelytra of *Myocara* Bergroth. I would suggest that in the case of these two new genera the macropterons form is either absent or very rare.

At first glance both genera resemble small beetles and the resemblance of one of them (*Carabocoris nov.*) to some of the smaller members of the Carabidae is particularly striking.

The four species are extremely shining and without (*Coleocoris nov.*) or virtually without (*Carabocoris*) punctation above. This condition is also partly developed in some other members of this section of the Lethaeini (e.g., *Myocara* Bergroth). The types of all four species are lodged in the South Australian Museum.

SYSTEMATIC

The four species and the two genera may be distinguished by the following key.

1. Pronotum with lateral margins in anterior three quarters broadly curved, in posterior quarter straight and parallel thus making

pronotum of pronounced carabid shape. Hardened hemelytra with sparse punctations. Upper surface of insect chestnut brown except for four yellow patches, a pair on lateral margin of each "elytron" . . .
Carabocoris biplagiatus sp. nov.

Pronotum trapezoidal, upper surface largely piccons (*Coleocoris* nov.) . . . 2.

2. With three lateral yellowish patches, one on humeral angles of pronotum the other two on lateral margins of "elytra" . . .
Coleocoris triplagiatus sp. nov.

Coloration not as above, but with at least some of the coloration as longitudinal or transverse lines . . . 3.

3. Lateral margins and base of pronotum yellow, so also lateral margins of "elytra" and also a longitudinal line on "elytra" about one-third out from inner margin and not reaching to base or apex . . .
Coleocoris lineatus sp. nov.

Base of pronotum only, and lateral margins of "elytra" as well as two patches very near the inner margin and about one-quarter way along length of inner margin from tip of scutellum yellow . . .
Coleocoris ocellatus sp. nov.

Genus *Coleocoris* nov.

Above shining, impunctate with scattered long hairs. Beneath with a few punctations for the most part arranged in rows on the thorax but otherwise impunctate with sparse long hairs and a short pilosity. Head strongly triangular, immersed almost to eyes which are moderately large, ocelli apparently absent. Tylus just surpassing jugae. Antennae about half length of body, first segment shortest but surpassing apex of head, second the longest, third a little shorter, subequal to or a little longer than fourth. Antennae with a short semi-adpressed pilosity and three or four spine like hairs on first segment and apical part of second. Rostrum of various lengths but always surpassing middle coxae.

Pronotum flattened trapeziform, almost square anteriorly, posterior and lateral margins straight, latter marginate, posterior angles almost a right angle, anterior ones shortly curved, no trace of a collar. Scutellum about as long as wide, flattened, with apex acuminate and lateral margins smoothly excavate in a sweeping curve.

Hemelytra feebly convex, thoroughly hardened like beetle elytra, reaching almost to base of last abdominal segment, apical margins curved and lateral margins broadly curved.

Fore femora incrassated with three or four spines beneath near the middle running towards apex and several near apex on upper side, hind and mid femora likewise with several spines on upper side near apex and hind femora also with several spines near apex below. All tibiae with about 15-20 strong spines scattered along their length. First segment of tarsi at least twice as long as remaining two segments together. Coxae with two or three spines. Sternum V with three trichobothria placed in line, anterior pair close together, posterior one placed behind spiracle and near hind margin.

Genotype: Coleocoris triplagiatus sp. nov.

I am unable to exactly place this genus amongst the described forms though it does seem to have some affinities with *Myocara* Bergroth. The head is longer in *Myocara* and the latter genus has ocelli but otherwise the head and pronotum are very similar in shape to those

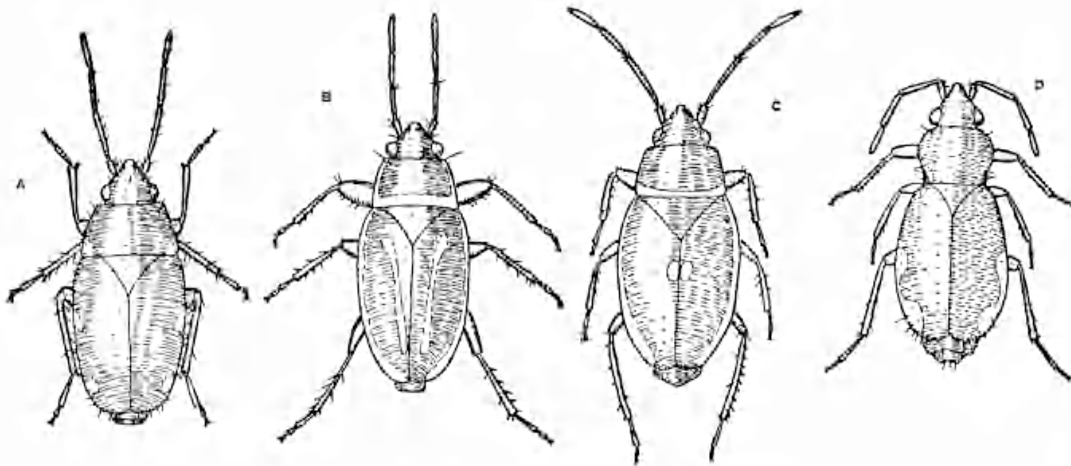


Fig. 1. A. *Coleocoris triplagiatus* gen. et sp. nov. B. *Coleocoris lineatus* sp. nov. C. *Coleocoris ocellatus* sp. nov. D. *Carabocoris biplagiatus* gen. et sp. nov. (All approximately x7.)

of *Coleocoris*. There are odd punctations on the pronotum and scutellum of *Myocara* and quite a lot on the hemelytra of *Myocara* but the underside of the two genera is very similar, even to the arming of the legs. In brachypterous *Myocara acuminata* Bergroth the hemelytra are likewise quite large but there is still a distinction between clavus and corium.

***Coleocoris triplagiatus* sp. nov.**

Fig. 1A

Above and below a shining dark brown with scattered long brown hairs and a very short and very sparse white pilosity, thicker and longer on the underside of the abdomen and the antennae. Above with three yellowish spots on either side, one in each posterior angle of the pronotum and two on the lateral margin of each "elytron," an oblique one about half way along and an oval one at about three quarters. Coxae, rostrum and three apical segments of antennae brown, first segment of antennae, apex of fourth and legs yellowish brown, a light yellow triangular patch on outer posterior margin of the propleuron confluent with yellow patch on upper side at humeral angle. Rostrum surpasses mid coxae, some long hairs on head and pronotum, length of antennal segments 0.30 mm., 0.70 mm., 0.70 mm., 0.70 mm., hind femora 1.0 mm., hind tibiae 1.1 mm. Total length 3.4-4.0 mm., width 1.7 mm., length pronotum 0.90 mm.

Locs. South Australia: Holotype male (Reg. No. 120,092) allotype female (Reg. No. 120,093) from Moolooloo Station, Flinders Ranges 2,000ft. (H. M. Hale, 1921) ten paratypes, two of which are larval (Reg. No. 120,094), from Leigh Creek (no collector or date) and one paratype (Reg. No. 20,095) from Mt. Remarkable (October, 1925, F. E. Wilson).

***Coleocoris lineatus* sp. nov.**

Fig. 1B

Body above and below a dark shining brown with above an extremely sparse and short pilosity, below, at least on abdomen, legs and antennae this pilosity somewhat thicker and longer. Above with lateral margins of thorax and elytra and upper apical quarter of third antennal segment bright yellow, hind margin of pronotum and a longitudinal stripe on each "elytron" about one-third way out from inner margin and commencing at about half length of scutellum from basal margin and not reaching apical margin by about half this distance dirty yellow. Femora, rostrum and antennae brown, tibiae and tarsi yellowish brown.

Head with a long hair on vertex on each side of the line joining middle inner margin of eye to base of tylus and another in each anterior corner of pronotum. Rostrum surpasses mid coxae, length of antennal

segments 0.30 mm., 0.65 mm., 0.63 mm., 0.50 mm., hind femora 1.1 mm., hind tibiae 1.3 mm. Total length 3.7 mm., width 1.7 mm., length pronotum 0.70 mm.

Loc. Thursday Island: Holotype female (Reg. No. 120,096) and two paratype females (Reg. No. 120,097). No other data.

***Coleocoris ocellatus* sp. nov.**

Fig. 1C

Body above and below piceous, with a very fine white pilosity beneath, thicker on the abdomen and antennae. Hind margin of pronotum continuing obliquely across hind angles, and a patch beneath contiguous with it on the outer posterior angle of the propleura, lateral margins of "elytra" (wider in the hindermost portion) and two rectangular patches near the inner margin a little behind apex of scutellum, and last antennal segment (except at base) white, the apical two-thirds of latter a dirty white. First three segments of antennae, rostrum, coxae, femora, dark brown, tibiae brown, tarsi yellowish brown.

Rostrum reaching almost to base of third ventral segment, length of antennal segments 0.30 mm., 0.66 mm., 0.57 mm., 0.60 mm., hind femora 1.1 mm., hind tibiae 1.4 mm. Total length 3.8 mm., total width 1.6 mm., length pronotum 0.77 mm.

Loc. Western Australia: Holotype female (Reg. No. 120,099) and paratype female (Reg. No. 120,098) both from Swan River (J. Clark, no other data).

Genus *Carabocoris* nov.

Above shining, with scattered punctations on elytra and scattered long hairs especially along edge of pronotum and "elytra." Beneath with strong punctations for the most part arranged in rows on the thorax, otherwise impunctate with sparse long hairs and a sparse short pilosity. Head strongly triangular, immersed almost to eyes which are moderately large, ocelli apparently absent. Tylus just surpassing jugae. Antennae about half length body, second segment the longest, third and fourth subequal and both shorter than second. Antennae with a short adpressed pilosity and a few strong hairs on first segment. Rostrum reaching hind coxae.

Pronotum flattened, anterior and posterior margins straight, lateral margins marginate, anterior three quarters a smooth convex curve, posterior quarter straight parallel sided, hind angles almost a right angle, no trace of collar. Whole pronotum in appearance remarkably like that of a typical carabid beetle. Scutellum about as long as wide, flattened with apex acuminate and lateral margins smoothly excavate in a sweeping curve, scutellum somewhat smaller than in *Coleocoris*.

Hemelytra feebly convex, thoroughly hardened like beetle elytra, reaching base of penultimate abdominal segment, apical and lateral margins broadly curved. Surface sparsely punctate.

Fore femora incrassated with three or four short spines beneath in the apical quarter, mid and hind femora with some very short spines near apex. All tibiae with about 8-12 strong but short spines scattered along their length. First segment of tarsi at least twice as long as remaining two segments together. Sternum V with three trichobothria placed in line, anterior pair close together, posterior one placed behind spiracle V and near hind margin.

Genotype: Carabocoris biplagiatus n. sp.

The affinities of this genus are undoubtedly with *Coleocoris*. It must rank as a separate genus as the three species of *Coleocoris* described above from widely separate localities are all remarkably close to one another structurally and *Carabocoris* falls considerably out of this range in features other than the distinctive shape of the pronotum (*e.g.*, punctuation of "elytra," different position of anterior femoral spines, weaker arming of tibiae and antennae, etc.).

***Carabocoris biplagiatus* sp. nov.**

Fig. 1D

Body above and below dark brown, with legs antennae, rostrum and two lateral patches on "elytra," one about the middle and the other just before apical angle, yellow. A few sparse dark hairs near apex of head, along lateral margins of pronotum and lateral and apical margins of "elytra," and beneath; on upper surface of abdomen and on legs and antennae a very short close white pilosity. Length of antennal segments 0.30 mm., 0.60 mm., 0.57 mm., 0.57 mm., hind femora 0.9 mm., hind tibiae 1.6 mm. Total length 3.8 mm., total width 1.6 mm., length pronotum 0.69 mm.

Loc. Western Australia: Holotype female (Reg. No. I20,100) from Lake Austin (H. W. Brown, no other data) and two paratype females (Reg. No. I20,101) from Cue (H. W. Brown, also no other data.).

REFERENCE

Scudder, G. G. E., 1957: "The higher classification of the Rhyparochrominae (Hem. Lygaeidae)" *Ent. mon. Mag.*, 4 (18); 152-156.